

◆ FEATURES

SMI chip inductors are 3L line of high quality ferrite chip inductors. Using the latest innovations in multilayer technology, we have developed reliable chip inductors that have high quality characteristics.

● High Performance Characteristics

SMI chips exhibit low DC resistance and high Q at high frequency.

● Wide Inductance Range

SMI chip inductors cover a wide range of inductance values from 0.047 μ H to 220 μ H.

● High Reliability

SMI chip inductors have a monolithic inorganic material construction that effectively minimizes electromagnetic interference.

● High Soldering Heat Resistance

SMI chip inductors have high quality termination allowing both flow and reflow soldering methods to be used.

◆ APPLICATIONS

SMI chip inductors can be used in a variety of electronics including:

- CD-ROMs
- Computers
- Hard disks
- Printers
- Modems
- Televisions

◆ PRODUCT IDENTIFICATION

(1)	(2)	(3)	(4)	(5)
SMI	- 160808	F	- 47N	K

(1).Product Code

(2).Dimensions(in mm)

(3).Material

(4).Inductance Code

(5).Tolerance Code

Code	Tolerance
K	$\pm 10\%$
M	$\pm 20\%$

◆ OPERATING TEMPERATURE: -40 ~ 85°C

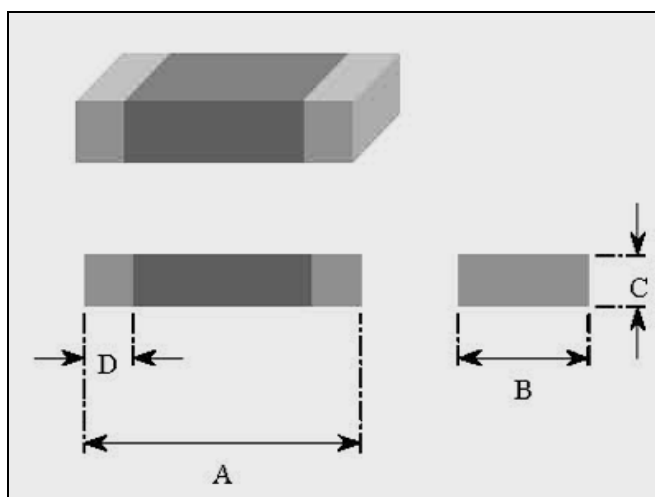
◆ TEST EQUIPMENTS AND TEST SETUP

L&Q&SRF by Agilent E4991A RF Impedance

Analyzer with HP16197A Test Fixture.

DCR by milli-ohm meter.

◆ PRODUCT DIMENSIONS



PRODUCT NO.	A	B	C	D
SMII-160808 (0603)	1.6 $\pm$ 0.20 (0.063 $\pm$ 0.008)	0.8 $\pm$ 0.20 (0.031 $\pm$ 0.008)	0.8 $\pm$ 0.20 (0.031 $\pm$ 0.008)	0.3 $\pm$ 0.20 (0.012 $\pm$ 0.008)
SMII-201209 (0805)	2.0 $\pm$ 0.20 (0.079 $\pm$ 0.008)	1.2 $\pm$ 0.20 (0.047 $\pm$ 0.008)	0.9 $\pm$ 0.20 (0.035 $\pm$ 0.008)	0.5 $\pm$ 0.30 (0.020 $\pm$ 0.012)
SMI-321611 (1206)	3.2 $\pm$ 0.20 (0.126 $\pm$ 0.008)	1.6 $\pm$ 0.20 (0.063 $\pm$ 0.008)	1.1 $\pm$ 0.20 (0.043 $\pm$ 0.008)	0.5 $\pm$ 0.30 (0.020 $\pm$ 0.012)

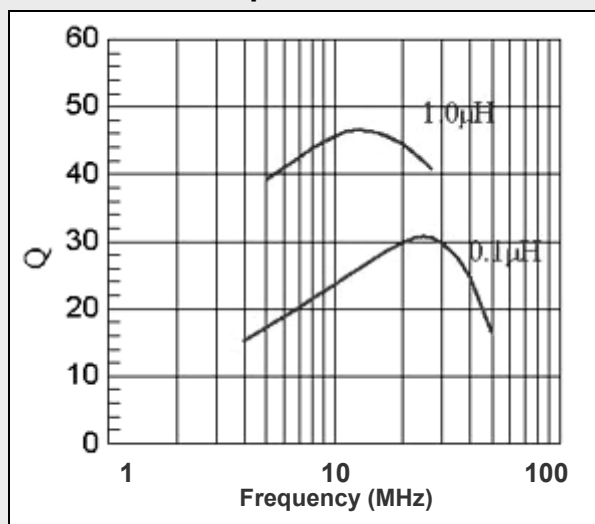
NOTE:Dimensions in mm(inch)

◆ PRODUCT SPECIFICATIONS

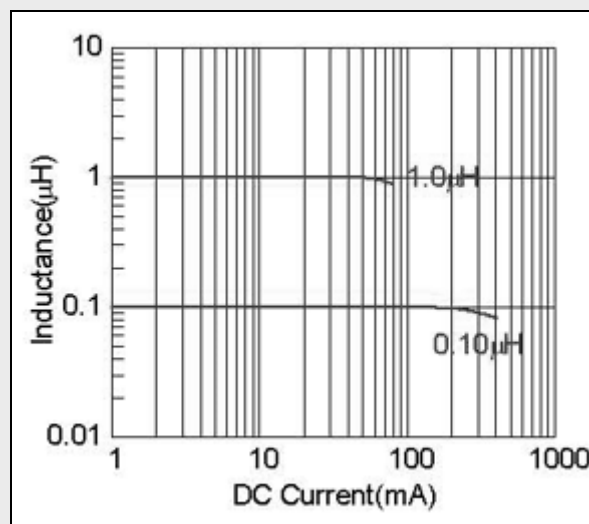
Part Number	Inductance (μ H)	Q MIN	TEST FREQ. (MHz)	S.R.F. (MHz) Min.	R _{DC} (Ω) Max.	I _{DC} (mA) Max.
SMI-160808F-47NK	0.047	10	50	260	0.30	50
SMI-160808F-56NK	0.056	10	50	260	0.30	50
SMI-160808F-68NK	0.068	10	50	250	0.30	50
SMI-160808F-82NK	0.082	10	50	245	0.30	50
SMI-160808F-R10K	0.10	15	25	240	0.50	50
SMI-160808F-R12K	0.12	15	25	205	0.50	50
SMI-160808F-R15K	0.15	15	25	180	0.60	50
SMI-160808F-R18K	0.18	15	25	165	0.60	50
SMI-160808F-R22K	0.22	15	25	150	0.80	50
SMI-160808F-R27K	0.27	15	25	136	0.80	50
SMI-160808F-R33K	0.33	15	25	125	0.85	35
SMI-160808F-R39K	0.39	15	25	110	1.00	35
SMI-160808F-R47K	0.47	15	25	105	1.35	35
SMI-160808F-R56K	0.56	15	25	95	1.55	35
SMI-160808F-R68K	0.68	15	25	90	1.70	35
SMI-160808F-R82K	0.82	15	25	85	2.10	35
SMI-160808F-1R0K	1.0	20	10	75	0.60	25
SMI-160808F-1R2K	1.2	20	10	65	0.80	25
SMI-160808F-1R5K	1.5	20	10	60	0.85	25
SMI-160808F-1R8K	1.8	25	10	55	0.95	25
SMI-160808F-2R2K	2.2	25	10	50	1.15	25
SMI-160808F-2R7K	2.7	25	10	45	1.35	15
SMI-160808F-3R3K	3.3	25	10	40	1.55	15
SMI-160808F-3R9K	3.9	25	10	35	1.70	15
SMI-160808F-4R7K	4.7	20	10	33	2.10	15
SMI-160808F-5R6K	5.6	20	4	22	1.60	5
SMI-160808F-6R8K	6.8	20	4	20	1.80	5
SMI-160808F-8R2K	8.2	10	4	18	2.15	5
SMI-160808F-100K	10	10	2	17	2.20	3
SMI-160808F-120K	12	15	2	15	2.25	3
SMI-160808F-150K	15	15	1	14	2.30	1
SMI-160808F-180K	18	15	1	13	2.40	1

◆ **TYPICAL ELECTRICAL CHARACTERISTIC CURVES**

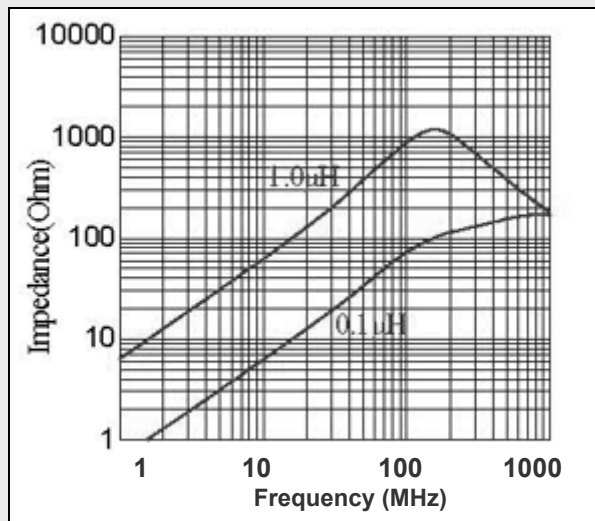
Q vs.Freq.Characteristics



Inductance vs.Current Characteristics



Impedance vs.Freq.Characteristics



Inductance vs.Temp.Characteristics

